

# PSMD5 (D-11): sc-390751

## BACKGROUND

In eukaryotic cells, selective breakdown of cellular proteins is ensured by their ubiquitination and subsequent degradation by the 26S Proteasome. The 26S Proteasome is a protease complex that selectively breaks down proteins that have been modified by polyubiquitin chains. It is made up of two multisubunit complexes: the 20S Proteasome chamber, which serves as the proteolytic core of the complex and two 19S regulatory particles which recognize and unfold ubiquitinated proteins. PSMD5 (proteasome (prosome, macropain) 26S subunit, non-ATPase 5), also known as S5B (S5 basic), is a regulatory component of the 26S Proteasome. More specifically, PSMD5 is a subunit of the 19S regulator base and associates in a heterotrimer with PSMC1 and PSMC2. It contains nine di-leucine repeats and a motif similar to the tyrosine-based motif, suggesting a role for PSMD5 in trafficking, targeting and/or internalization.

## REFERENCES

1. Deveraux, Q., et al. 1994. A 26 S protease subunit that binds ubiquitin conjugates. *J. Biol. Chem.* 269: 7059-7061.
2. Nomura, N., et al. 1994. Prediction of the coding sequences of unidentified human genes. II. The coding sequences of 40 new genes (KIAA0041-KIAA0080) deduced by analysis of cDNA clones from human cell line KG-1. *DNA Res.* 1: 223-229.
3. Deveraux, Q., et al. 1995. Molecular cloning and expression of a 26S protease subunit enriched in dileucine repeats. *J. Biol. Chem.* 270: 23726-23729.
4. Gorbea, C., et al. 2000. Mapping subunit contacts in the regulatory complex of the 26 S proteasome. S2 and S5b form a tetramer with ATPase subunits S4 and S7. *J. Biol. Chem.* 275: 875-882.
5. Lier, S. and Paululat, A. 2002. The proteasome regulatory particle subunit Rpn6 is required for *Drosophila* development and interacts physically with signalosome subunit Alien/CSN2. *Gene* 298: 109-119.

## CHROMOSOMAL LOCATION

Genetic locus: PSMD5 (human) mapping to 9q33.2; Psm5 (mouse) mapping to 2 B.

## SOURCE

PSMD5 (D-11) is a mouse monoclonal antibody raised against amino acids 205-504 mapping at the C-terminus of PSMD5 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PSMD5 (D-11) is available conjugated to agarose (sc-390751 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390751 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390751 PE), fluorescein (sc-390751 FITC), Alexa Fluor<sup>®</sup> 488 (sc-390751 AF488), Alexa Fluor<sup>®</sup> 546 (sc-390751 AF546), Alexa Fluor<sup>®</sup> 594 (sc-390751 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-390751 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-390751 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-390751 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

PSMD5 (D-11) is recommended for detection of PSMD5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PSMD5 siRNA (h): sc-92791, PSMD5 siRNA (m): sc-152561, PSMD5 shRNA Plasmid (h): sc-92791-SH, PSMD5 shRNA Plasmid (m): sc-152561-SH, PSMD5 shRNA (h) Lentiviral Particles: sc-92791-V and PSMD5 shRNA (m) Lentiviral Particles: sc-152561-V.

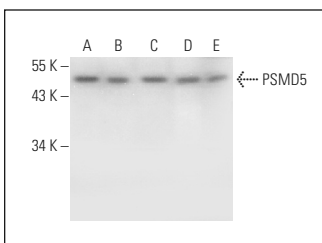
Molecular Weight of PSMD5: 50 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, RT-4 whole cell lysate: sc-364257 or U-251-MG whole cell lysate: sc-364176.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



PSMD5 (D-11): sc-390751. Western blot analysis of PSMD5 expression in A-431 (A), RT-4 (B) and U-251-MG (C) whole cell lysates and human liver (D) and human tonsil (E) tissue extracts.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

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